

to the rejection under 35 USC 112, second paragraph. The amendments to claims 1 and 9 incorporate the definition of resiliency index set forth at page 12 of the application. As amended, the claims provide an explicit technique for determining the resiliency index of a material. Accordingly, Applicant requests reconsideration and withdrawal of the rejection under 35 USC 112, second paragraph.

As also discussed at the interview, and in response to the objection to the specification and the rejection of the claims under 35 USC 112, first paragraph, Applicant notes that the specification discloses a material appropriate for the uppermost layer 22 of the sole. For example, at page 14, lines 3-14, the application describes an expanded polymer available from Pandel Inc. of Atlanta, Georgia under the designation "Tennis Embedded Floor Matting" as being a suitable material. This material has a resiliency index of 0.156.

The specification also provides a technique for identifying the resiliency index of a material. This technique is discussed in the specification at page 10, line 9 to page 13, line 10.

Applicant requests reconsideration and withdrawal of the rejection under 35 USC 112, first paragraph, for the reasons presented above.

Independent claim 1 is directed to a low resiliency sole for use in an article of footwear in proximity to a plantar surface of a foot. In particular, the sole has a resiliency index in the range from about .05 to about .5, where the resiliency index is defined as a ratio $(R-M)/(P-M)$, with P being a thickness measured when only a pre-load is applied, M being a thickness measured when both the pre-load and a main load are applied, and R being the maximum recovered thickness within one second immediately following removal of the main load.

C

Independent claim 9 is directed to an article of footwear including a sole comparable to the sole of claim 1.

As defined, the resiliency index generally has values ranging from 0 to 1, so that a material having a resiliency index of less than 0.5 is a low resiliency material, and a material having a resiliency index of greater than 0.5 is a high resiliency material. Non-resilient materials have resiliency indices at or near zero.

Conventional wisdom has been that stability of an article of footwear may be enhanced through use of high resiliency materials. By contrast, the invention uses low resiliency materials to improve stability.

Claims 1-18 stand rejected as being anticipated by, or obvious in view of, Moronaga. As the basis of the anticipation rejection, the Examiner asserts that the material of Moronaga may inherently have the resiliency index claimed. Applicant respectfully disagrees.

As discussed at the interview and described in the attached Declaration Under 37 CFR § 1.132, the inventor has determined that the resiliency indices of materials such as are described by Moronaga do not fall within the ranges recited in the claims. For example, natural and synthetic rubbers tested by the inventor have resiliency indices greater than 0.9, while tested EVA materials have resiliency indices greater than 0.65. Indeed, of approximately 1,000 materials tested by the inventor, only two (a PVC foam and a vinyl nitrile material) were found to have resiliency indices of less than 0.5. These materials, which are marketed for use as carpet underpadding for tennis courts (the PVC foam) or used in water safety devices (the vinyl nitrile material), are not commonly used to form the sole of a shoe. Since Moronaga does not describe materials that inherently have the claimed resiliency indices, Applicant requests

C

reconsideration and withdrawal of the rejection of claims 1-3, 7-11 and 15-18 as being anticipated by Moronaga.

Applicant also requests reconsideration and withdrawal of the rejection of claims 1-18 as being obvious over Moronaga. As the basis of the obviousness rejection, the Examiner states that "where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art." Assuming for sake of argument that the Examiner's statement of the law is correct, the subject matter of the claims would not have been obvious, since the prior art contemplated the use of high resiliency materials, rather than low resiliency materials. As such, "the general conditions" of the claims were not disclosed in the prior art, and Applicant's invention is more than just the mere discovery of optimum or workable ranges.

Applicant also disagrees with the Examiner's assertion that:

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a material with the claimed resiliency index, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In re Leshin, 125 USPQ 416.

As discussed above, conventional wisdom has been that stability of an article of footwear may be enhanced through use of high resiliency materials, rather than through use of low resiliency materials, as recited in the claims. Indeed, as discussed above, Moronaga describes high resiliency materials. As such, one of ordinary skill in the art would have had no motivation to select a low resiliency material for use in Moronaga's shoe. This lack of motivation is further accentuated by the fact that the only materials found by the inventor to have the recited resiliency

C

index (i.e., the PVC foam and the vinyl nitrile material) are not marketed for use, or commonly used, in footwear.

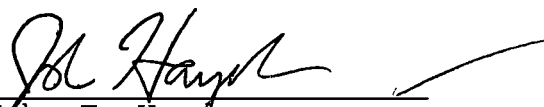
For these reasons, Applicant requests reconsideration and withdrawal of the rejection of claims 1-18 as being obvious over Moronaga.

In view of the foregoing amendments and remarks, Applicant submits that all of the claims are now in condition for allowance, and requests a prompt action to that effect.

Please charge any additional fees, or make any credits, to Deposit Account No. 06-1050, referencing the attorney docket number provided above.

Respectfully submitted,

Date: May 8, 1998



John F. Hayden
Reg. No. 37,640

Fish & Richardson P.C.
601 13th Street NW
Washington, D.C. 20005

Telephone: 202/783-5070
Facsimile: 202/783-2331
85035.W11

C